

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE MAR 2010		2. REPORT TYPE		3. DATES COVERED 00-00-2010 to 00-00-2010	
4. TITLE AND SUBTITLE Department of Defense Position on Patient Movement During Influenza A (H1N1) Pandemic: Implications for Actions Now				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Armed Forces Health Surveillance Center, 2900 Linden Lane, Silver Spring, MD, 20910				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 3	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

Department of Defense Position on Patient Movement During Influenza A (H1N1) Pandemic: Implications for Actions Now

Jean Lin Otto, DrPH;* *Daniel J. Barnett, MD, MPH†;* *Col Carol Fisher, USAF BSC‡;*
COL Robert Lipnick, MS USA;* *COL Robert F. DeFraités, MC USA**

In the face of the current influenza pandemic, Department of Defense (DoD) policies on transporting contagious patients have a profound global bearing on military force protection and operations. Modern air transportation has enabled unprecedented movement of humans around the world and with it the potential for rapid spread of contagious diseases. Although waiting to move patients until they are no longer infectious is the most effective means to reduce disease spread, the clinical situation may not allow for this. Aeromedical evacuations (AE) is the movement of sick or injured personnel, under medical supervision, to appropriate medical treatment facilities or hospitals by air transportation. These evacuations have revolutionized the rapid transport of patients from areas where there is either inadequate care or no care available to facilities where essential or definitive care can be rendered. Peacetime AE missions in 1990 transported 70,000 patients within the continental United States (CONUS).¹ After the full implementation of TRICARE in the early 1990s, these totals steadily declined to about 11,000 in 2001.¹ Since the beginning of Operation Enduring Freedom in October 2001, over 66,480 individuals have been medically evacuated from U.S. Central Command (CENTCOM) to elsewhere.² Of these, 59% were evacuated for disease, 20% for nonbattle injuries, 19% for battle injuries, and 2% unknown.²

Air Mobility Command (AMC), the U.S. Transportation Command (USTRANSCOM) component responsible for providing intertheater and intratheater AE, currently moves patients with certain infectious diseases such as those with low epidemic risk. Although AMC transports some contagious patients routinely using appropriate infection control, the operational decision to evacuate patients with infectious diseases is complicated by many factors, including the etiologic agent involved. For example, in-flight influenza infections are likely to spread with great efficiency because of close proximity and closed environmental conditions. During a long international flight, some of the crew and passengers may become symptomatic because of a recent exposure, with multiple secondary cases then arising from the transport.

To address concerns and issues related to transportation and public health management of contagious individuals

in the context of an influenza pandemic, the Armed Forces Health Surveillance Center (AFHSC) and the Center for Disaster and Humanitarian Assistance Medicine (CDHAM) sponsored a one-day, Tri-Service workshop and tabletop exercise entitled "U.S. Military's Management of Pandemic Influenza A (H1N1) and Beyond." This workshop occurred on August 17, 2009 in Albuquerque, New Mexico in conjunction with the U.S. Army Center for Health Promotion and Preventive Medicine's Force Health Protection Conference. One hundred professionals from CONUS and OCONUS military installations, combatant commands (COCOMs), military medical institutions, service public health hubs, the Pentagon, and other members of the public health community participated. The participants included not only senior leaders and policymakers but also a diverse mix of frontline practitioners including physicians, environmental scientists, nurses, medical planners, and others. Approximately one-third were public health emergency officers (PHEOs) or alternate PHEOs. Participants represented each of the services as well as all the geographic COCOMs.

A central focus of workshop presentations and discussions related to current USTRANSCOM policy on movement of highly contagious patients. This policy dictates that patients with known or suspected infection with a highly contagious disease will not be transported within the patient movement system, but rather will be treated "in place" or with minimal transportation to medical authorities.³ These include infections with any agent that could present a national security threat, require special public health actions, or potentiate public panic and social disruption.³ The "treat in place" approach may thus entail movement of medical resources to locations of need.

The discussions uncovered certain issues in present USTRANSCOM policy regarding patient movement with significant implications for U.S. military policy, planning, and operations in the present influenza pandemic. One such policy issue is the current absence of a clearly defined, specific "trigger"—based on case fatality rate, morbidity levels, or otherwise—for transitioning to the USTRANSCOM policy on highly contagious patient movement. After consideration of the current characteristics of the influenza A (H1N1) virus (i.e., that most cases of H1N1 cause mild to moderate illness), USTRANSCOM has deemed that patient movement for suspected, probable, or confirmed H1N1 does not yet fall under the policy and does not require approval from the Secretary of Defense.^{4,5} The August 17 workshop participants, however,

*Armed Forces Health Surveillance Center, 2900 Linden Lane, Silver Spring, MD 20910.

†Johns Hopkins Bloomberg School of Public Health, Department of Environmental Health Sciences, 615 N. Wolfe Street, Baltimore, MD 21205.

‡Air Mobility Command, 203 W. Losey Street, Bldg 1700, Scott Air Force Base, IL 62225.

raised operational concerns about the threshold at which this policy might take effect in the context of the current influenza A (H1N1) pandemic. Given the capacity of influenza viruses to mutate rapidly (with potential for greater severity), this gap in current USTRANSCOM policy is a timely and salient issue.

The August 17 workshop also raised a series of critical—and currently unanswered—questions that would apply if and when the USTRANSCOM treatment in place policy does take effect for patients with pandemic influenza A (H1N1) infection. What specific surge capacity management strategies should these treatment facilities employ in the context of treating in place? What altered standards of care would apply in the face of diminished healthcare resources (e.g., antibiotics, antiviral drugs, ventilators)? If a given installation's treatment resources were to become depleted, what inter- and intra-COCOM mechanisms would be used to transfer assets from less affected to more affected areas? How would a host nation's airspace prohibitions or relevant disease mitigation restrictions impact USTRANSCOM's treatment in place policy? These critical questions require timely answers, accompanied by enhanced emphasis on inventorying of medical assets during this rapidly narrowing planning window.

USTRANSCOM's treatment in place policy is a fundamentally localized model for infectious disease management, consistent with the maxim that "all disasters begin locally." Addressing the above questions and issues raised at the August 17 workshop will necessitate broad and efficient dissemination of policy clarifications to all stakeholders DoD-wide, including installations, which represent the localized front lines of the treatment in place model. Such policy clarifi-

cations will require both specificity and flexibility, accounting for the epidemiologic reality that different locations within different COCOMS will likely experience different pandemic disease burdens at different times during the course of current and future pandemics.

ACKNOWLEDGMENTS

We thank the following individuals who contributed to the development of the tabletop exercise: LT Matthew Johns, Dr. Jose L. Sanchez, MAJ Christopher Perdue, CDR David Blazes, Dr. John D. Malone, COL Louis Smith, MAJ Ronald Burke, and CAPT Kevin Russell. In addition, we acknowledge the following individuals who presented or facilitated a breakout group in the August 17 workshop: COL Wayne Hachey, Lt Col Matthew Wyatt, COL Deborah Knickerbocker, CDR Danny Shiau, CDR David Blazes, COL Louis Smith, CAPT Kevin Russell, COL Mark Kortepeter, COL Zygmunt Dembek, and Lt Col John B. Woods.

REFERENCES

1. United States Air Force: Aeromedical evacuation changes to focus on requirements. Available at http://airforcemedicine.afms.mil/sg_newswire/sep_03/AEchanges.htm; accessed September 29, 2009.
2. Armed Forces Health Surveillance Center: TRAC²ES data.
3. USTRANSCOM: Memorandum for Commander, Air Mobility Command, Policy for Patient Movement of Contaminated Contagious or Potentially Exposed Casualties, March 14, 2008.
4. Department of Defense: Pandemic Influenza: Clinical and Public Health Guidelines for the Military Health System, June 2009. Available at <http://fhpp.osd.mil/aiWatchboard/pdf/PI%20Clinical%20and%20Public%20Health%20Guidelines%20for%20the%20MHS%202%20JUNE%202009.pdf>; accessed August 7, 2009.
5. USTRANSCOM: Memorandum, H1N1 Patient Movement Policy, September 28, 2009.

Copyright of Military Medicine is the property of Association of Military Surgeons of the United States and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.